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Annual Drinking Water Quality Report

Magnolia Rural Water Association, Inc

PWS #MS0570015

June 11, 2015

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

Our water source is from 2 wells using water from the Miocene Aquifer.

Source water assessment and its availability

The source water assessment has been completed for our public water system to determine the overall susceptibility of its drinking water supply to identified potential sources of contamination. The general susceptibility rankings assigned to each well of this system are provided immediately below. A report containing detailed information on how the susceptibility determinations were made has been furnished to our public water system and is available for viewing upon request. The wells for the Magnolia Rural Water Association have received a moderate susceptibility ranking to contamination.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity: microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

If you have questions about this report or concerning your water utility, please contact Edgar Lewis, Certified Water Operator, at 601-783-2008. We want our valued customers to be informed about their water utility. If you want to learn more, please attend our monthly board meeting, which is held at 6:30PM on the second Tuesday of each month at the water office at 265 East Bay Street, Magnolia, MS.

Description of Water Treatment Process

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Monitoring and reporting of compliance data violations

During a sanitary survey conducted on 11/14/2013, the Mississippi State Department of health cited the following significant deficiency(s): G200 Inadequate application of treatment chemicals and techniques (primary MCLs)

Significant Deficiencies

Corrective actions: MSDH is currently working with this system to return them to compliance since the expiration of the compliance deadline. We anticipate the system being returned to compliance by 9/30/2015

Additional Information for Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Magnolia Rural Water Association, Inc, is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range Low High		Sample Date	Violation	Typical Source
Disinfectants & Disinfectant By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	1.2	0.9	1.8	2014	No	Water additive used to control microbes
TTHMs [Total Trihalomethanes] (ppb)	NA	80	0	ND	0	2010	No	By-product of drinking water disinfection
Inorganic Contaminants								
Cyanide [as Free Cn] (ppb)	200	200	15	15	15	2013	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories

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1,2,4-Trichlorobenzene (ppb)	70	70	0.5	0.5	0.5	2014	No	Discharge from textile-finishing factories
cis-1,2-Dichloroethylene (ppb)	70	70	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
Xylenes (ppm)	10	10	0.0005	0.0005	0.0005	2014	No	Discharge from petroleum factories; Discharge from chemical factories
Dichloromethane (ppb)	0	5	0.5	0.5	0.5	2014	No	Discharge from pharmaceutical and chemical factories
o-Dichlorobenzene (ppb)	600	600	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	75	75	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
Vinyl Chloride (ppb)	0	2	0.5	0.5	0.5	2014	No	Leaching from PVC piping; Discharge from plastics factories
1,1-Dichloroethylene (ppb)	7	7	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	100	100	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	0	5	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
1,1,1-Trichloroethane (ppb)	200	200	0.5	0.5	0.5	2014	No	Discharge from metal degreasing sites and other factories
Carbon Tetrachloride (ppb)	0	5	0.5	0.5	0.5	2014	No	Discharge from chemical plants and other industrial activities
1,2-Dichloropropane (ppb)	0	5	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
Trichloroethylene (ppb)	0	5	0.5	0.5	0.5	2014	No	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	3	5	0.5	0.5	0.5	2014	No	Discharge from industrial chemical factories
Tetrachloroethylene (ppb)	0	5	0.5	0.5	0.5	2014	No	Discharge from factories and dry cleaners
Chlorobenzene (monochlorobenzene) (ppb)	100	100	0.5	0.5	0.5	2014	No	Discharge from chemical and agricultural chemical factories
Benzene (ppb)	0	5	0.5	0.5	0.5	2014	No	Discharge from factories; Leaching from gas storage tanks and landfills
Toluene (ppm)	1	1	0.0005	0.0005	0.0005	2014	No	Discharge from petroleum factories
Ethylbenzene (ppb)	700	700	0.5	0.5	0.5	2014	No	Discharge from petroleum refineries

Styrene (ppb)	100	100	0.5	0.5	0.5	2014	No	Discharge from rubber and plastic factories; Leaching from landfills
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	0.8	2012	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	11	2012	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfectant level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

For more information please contact:

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